A treatment for Zika virus infection and neuroprotection efficacy

Grant Award Details

A treatment for Zika virus infection and neuroprotection efficacy

Grant Type: Quest - Discovery Stage Research Projects

Grant Number: DISC2-09649

Project Objective: A treatment for Zika virus infection and neuroprotection efficacy

Investigator:

Name:	Alysson Muotri
Institution:	University of California, San Diego
Type:	PI

Disease Focus: Neurological Disorders, Zika virus, Infectious Disease

Human Stem Cell Use: iPS Cell

Award Value: $1,924,524

Status: Active

Grant Application Details

Application Title: A treatment for Zika virus infection and neuroprotection efficacy

Public Abstract:

Research Objective

We propose to determine the impact of the Zika virus during human neurodevelopment and to test a FDA-approved therapeutic candidate to treat Zika infection.

Impact

A drug to treat/cure Zika infection and for neuroprotection.

Major Proposed Activities

- To determine the molecular and cellular alterations caused by the Zika virus in the human developing brain and to validate a potential treatment for Zika infection.
- To re-purpose a therapeutic drug to treat Zika infection and for neuroprotection using in vivo models.
- To prepare and organize a clinical trial for Zika infection in a target population using a repurposed FDA-approved anti-viral drug.

Statement of Benefit to California:	The recent outbreak of Zika virus prompted the WHO to declare a public health emergency of international concern due to the link between infected pregnant women and microcephalic babies. The virus is spreading quickly and cases of Zika was already reported in California. This proposal will test a FDA-approved drug repurposed to neutralize the virus deleterious consequences in human brain cells. The experiments are designed to learn about the long-term consequences of the virus infection.

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